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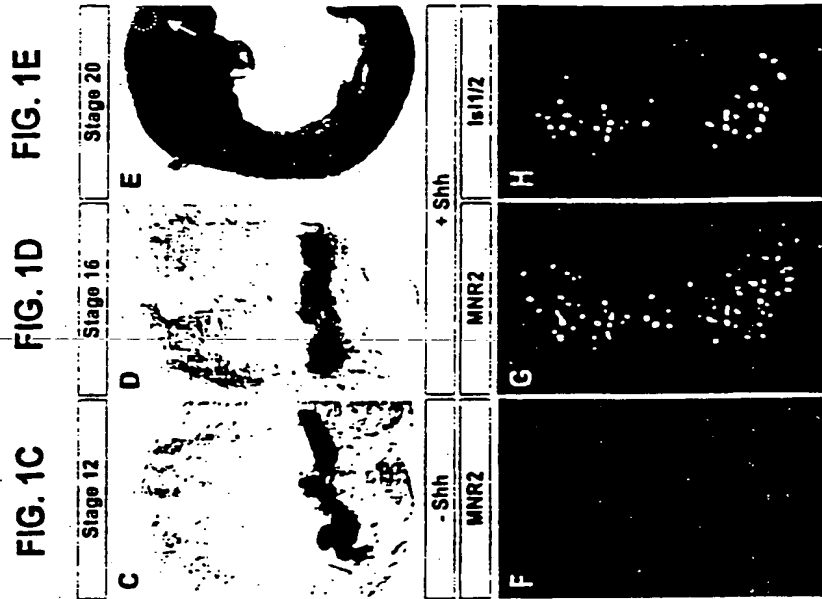
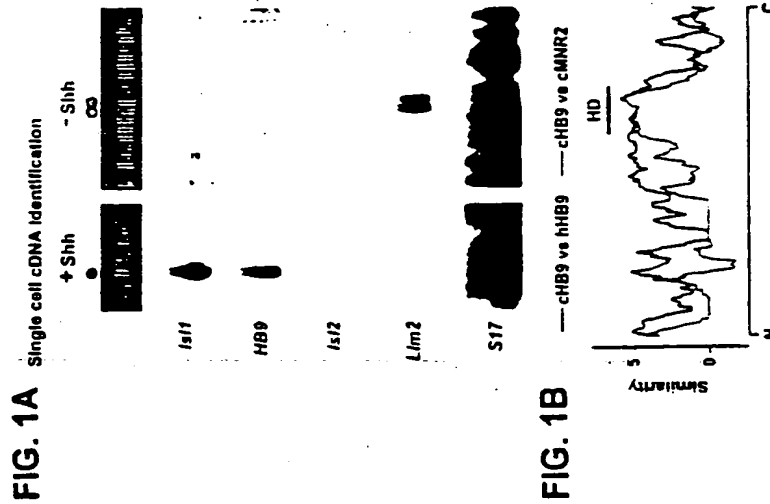


FIG. 2A FIG. 2B FIG. 2C FIG. 2D FIG. 2E FIG. 2F

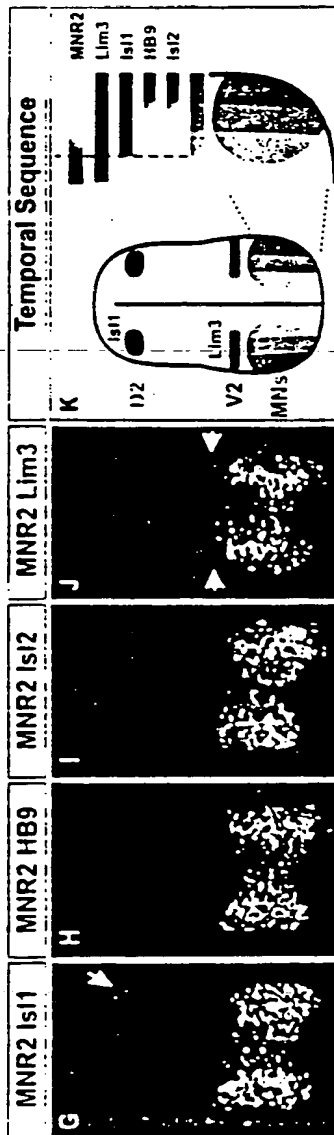
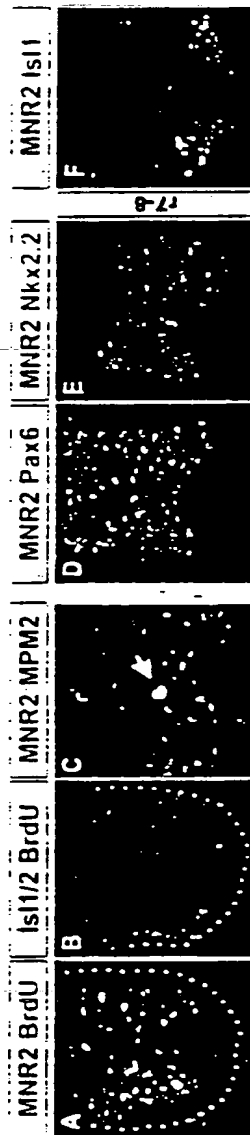
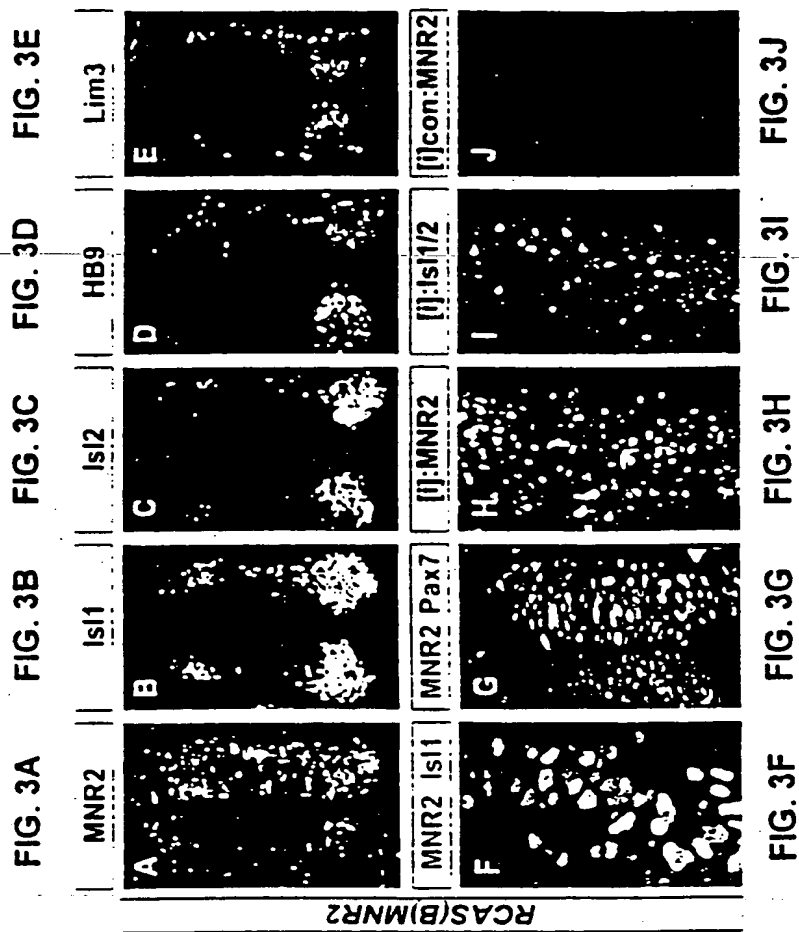


FIG. 2G FIG. 2H FIG. 2I FIG. 2J FIG. 2K



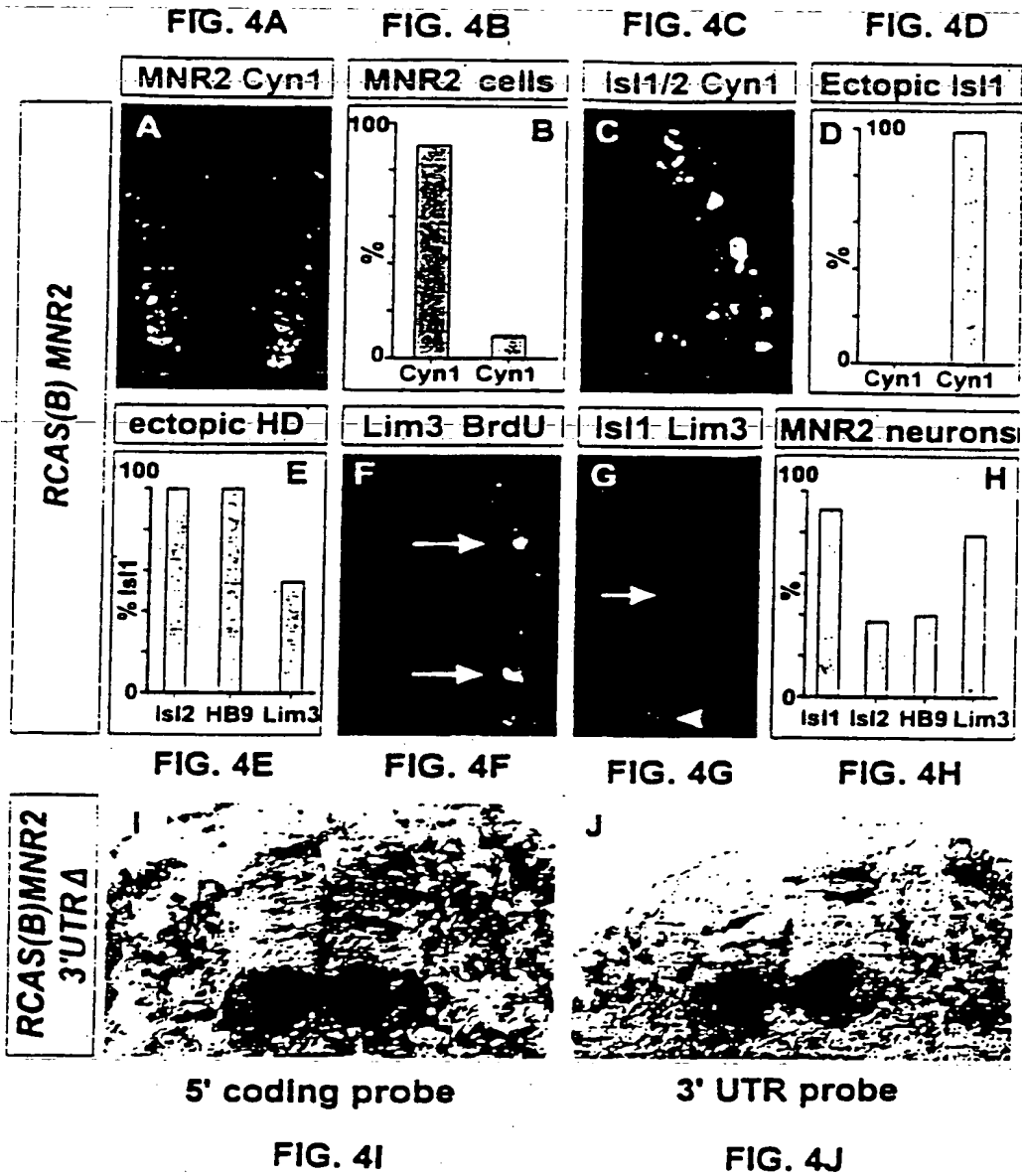


FIG. 5A FIG. 5B FIG. 5C FIG. 5D FIG. 5E

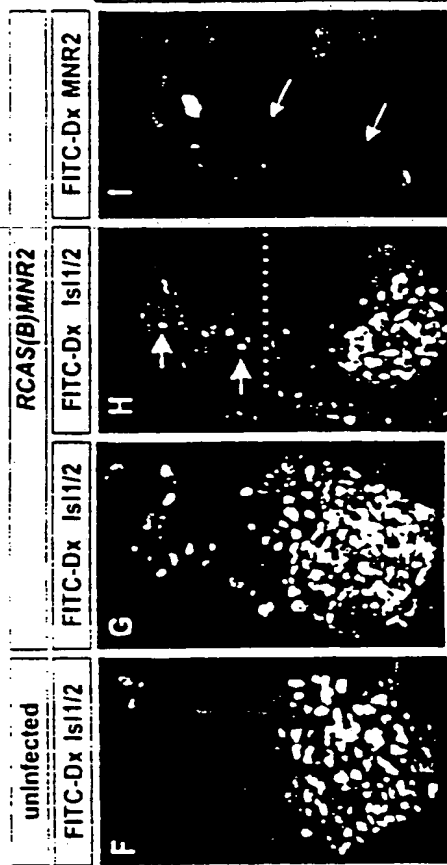
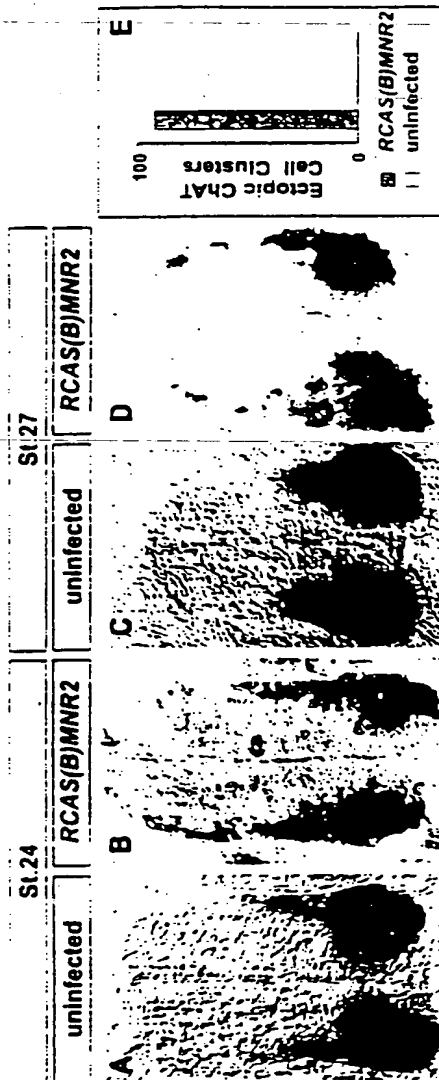


FIG. 5F FIG. 5G FIG. 5H FIG. 5I FIG. 5J

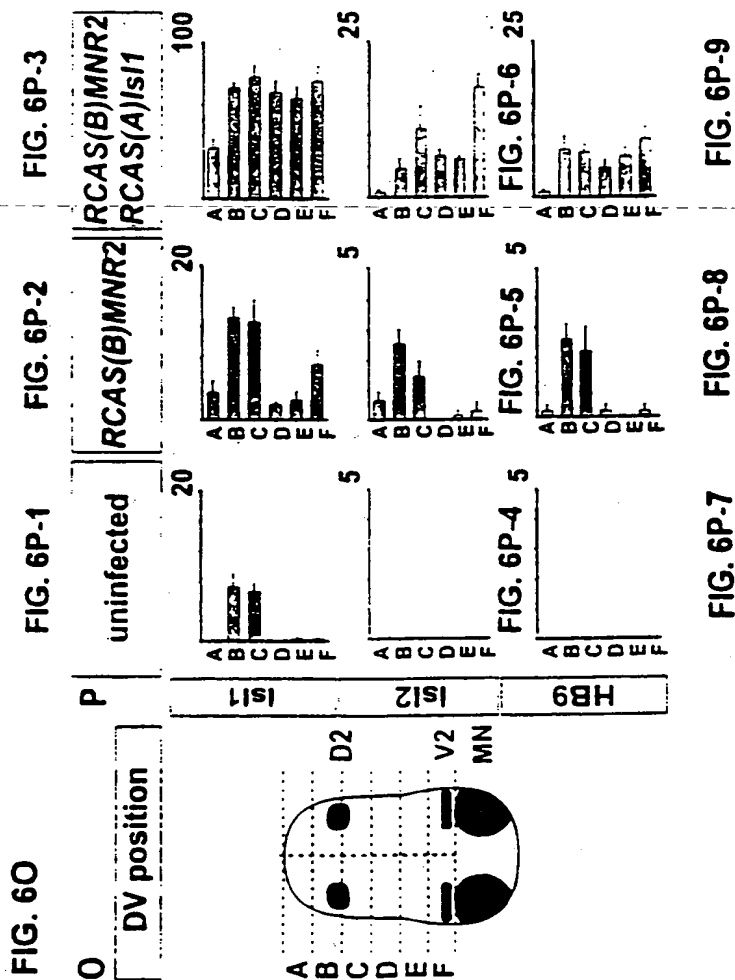
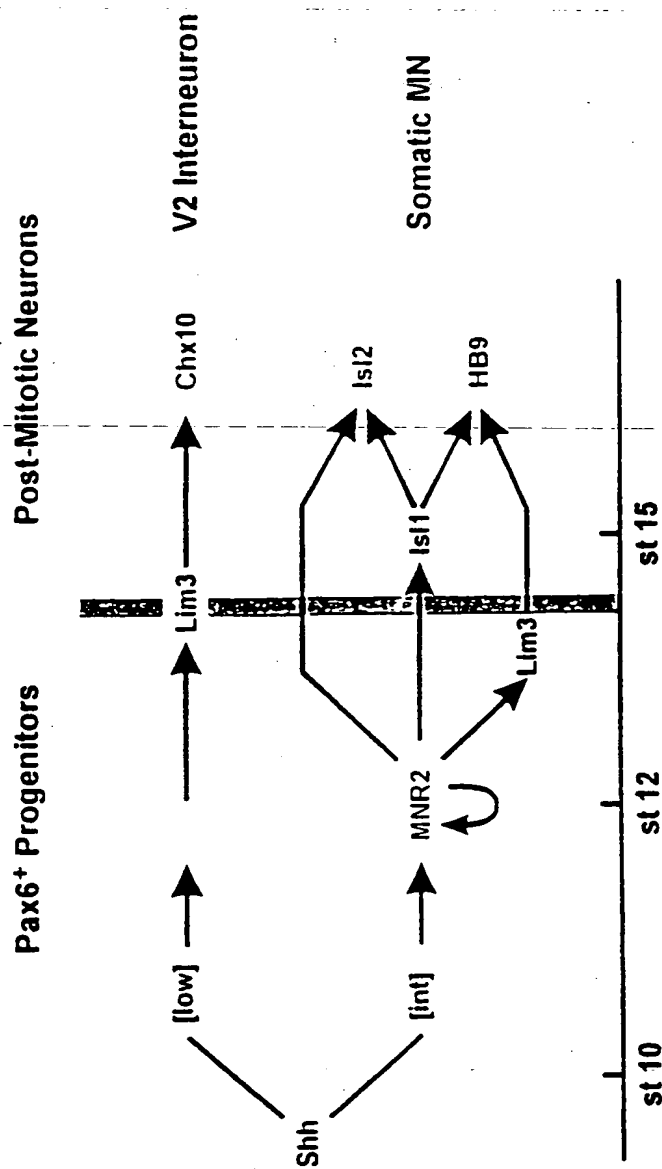


FIG. 8



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FIG. 9A

Interneuron Pattern

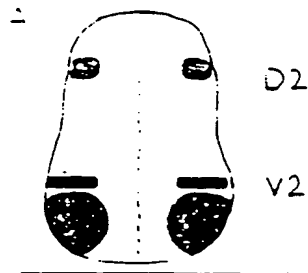


FIG. 9B

RCAS B.MNR2

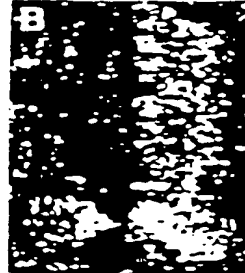


FIG. 9C

LH2

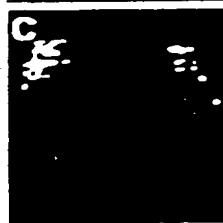


FIG. 9D

Isl1

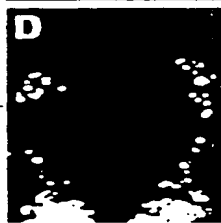
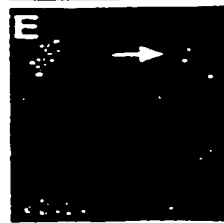
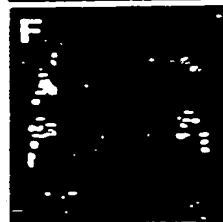


FIG. 9E

LH2 Isl1



Brn3.0



Isl1



Brn3.0 Isl1

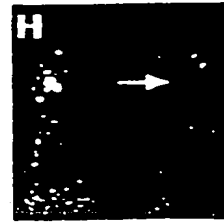


FIG. 9F

FIG. 9G

FIG. 9H

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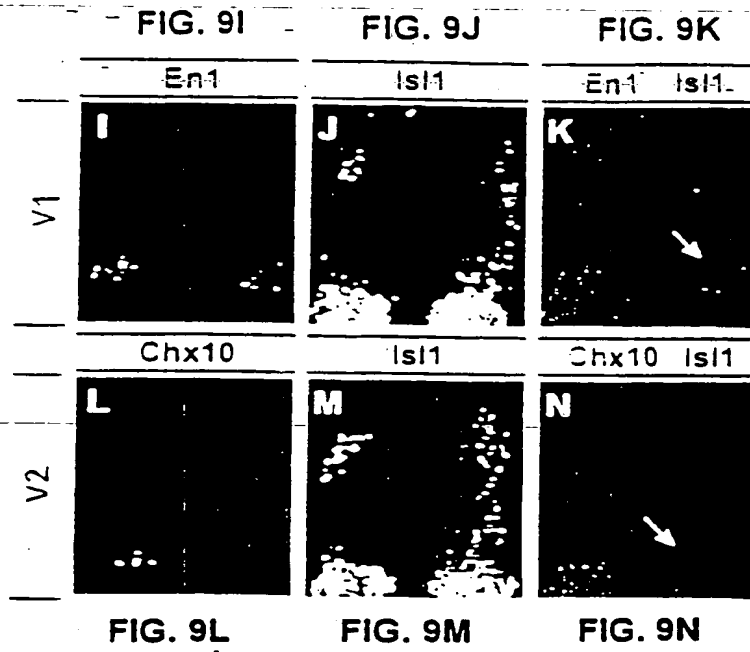


FIG. 9I

FIG. 10

SEQ. ID NO. 1

cMNR2-protein

1 MIKPMESQN FRIEALLAEK PPRSASPPGL SPAGSPGPAG RTDTPSPRAP QAAATPIGPAG
61 FVPKPGLLHL PGPGGLGTI.PA LYPPAVYPLP ALGGQHAAFA YTAFPQLPPP GAEHLKAAVA
121 GSFPLEQWIR AGMLVPRLSD FHATPQSALM GKSRRPRTAF TSQQILLELEN QFKINKYLSR
181 PKRFEVATSL MLTETQVKIW FQNRMRMKWR SRKAKEQMA VEPEKPRGIG KADESILPSQ
241 PQQAGDSPE FVGCSPGTGF LCRSAELGYD PDSSCSGGEE DEEEEDDGMD TAERKMGSVI.

FIG. 11 cMNR2-dna

SEQ. ID NO. 2

1 CAGATCTGCT CCCAGATGCT CTGCTCTCC TCGAAGGCCA GAGTGGTGG GTCCGGGCCA
 61 GCTCTGCTCC TGTTCACCCG CCTGTCCAG AGCAGCCAG GTTTCATCT CCACCTGTTT
 121 CTGGTGCCTT CACCTGGAGA AGACCAACC GAGCAATTA ATAACAATCT GCCCGTATGC
 181 ACCTGCTCCA TGGGCTTCTT GGGCGGATAG ACGATGCAG GTTGTGGCCC CTGCGTGCAG
 241 CCAGCTCGGG CCGGCTGAIG TCCCCGTGCC AAAGAGGTGC AAAGAGGAAC GCCACGGGGT
 301 GTGAAGAGCA GGAATGGGC CCGGGTGTG CCGAGGGCTT GCGAAGCCG GCGGAGGAG
 361 GCCGGGCCGA CCGGGCGGG GCGCGCGGG GAGCCAATAG GGAGCTGGGG CAGCTGGAGG
 421 GGGGGGTAA AACCCCCCG GTGGCGCGG GCAAGCGAGT GCCCGGAGG AGGAGCGGTG
 481 AGGAGGGCTG CCGCTGAGGG CAGCGGAGG CCGCGCGGC CCGCGAGTGA ATGCCCGCGG
 541 GTGCCCGGGT GCGCGCGGC TCGCGCGCG GCGCTGCCC TGGCAGCCGA GCGGCGGGG
 601 GAGGACGCTT GCGTCTGCG GGGGCCCGG CCGGCCATGC ACAACCCAT GGAGAAGTCC
 661 CAAACTTCC GCATCGAGC GCTCTGGCT GAGAAGCCG CCGGAGCGC CTCTCTTCG
 721 GGGCTCAGCC CCGCGGCAG CCGCCACCC CCGCGGCCG CCGGCCGTA CCGACACCCC
 781 GCTCCCCAG CCGCCACCC CCGCGGCCG CCGGCCCTT TCCCCAAACC CGGCTTGTG
 841 CACCTCCCCG GCGCGGGCT GGGACCTG CCGGCCCTT ACCCGCTGC CGTGTACCCG
 901 CTGCCGGCCT TGGGGGGCA GCAGCGCGT TCGCCTACA CCGCTTCCC CCAGCTGCCG
 961 CCGCCGGCG CCGAGACCT GAAGCGGCG GTGGCGGTT CTTCCCGCT GGAGCAGTGG
 1021 ATCCGAGCG GGAATGCTG GTCCAGGCTC TCCGACTCC AGCCACCCC ACAGTCCGCC
 1081 TTGATGGGA AGTCCGCCG GCGCGCAC CAAGTATCT TCCAGGCCA AGCGCTTCCA GTTGGCCACG
 1141 GAGAACCAGT TCAAGCTCAA CAAGTATCT TCCAGGCCA AGCGCTTCCA GTTGGCCACG
 1201 TCGCTGATGC TCATGAGAC GCAGGTGAAG ATCTGCTTCC AGAACCGCG CATGAAGTGG
 1261 AAGCGGAGCC GCAAGGCCA GGAGCAGGG ATGGCAGTGG AGCCCGAGAA GCCACGGGGG
 1321 CTTGGCAAG CTGATGAGAG TCTGCTGCC AGCCAGCCC AGGGACAGG TGGTGACAGC
 1381 CCGGAGTTTG TGGGTGAG CCGCGGAAC GCGTCTCTGT GCGCAGCGC CGAGCTGCGC
 1441 TATGACCCCG ACTCTTCTG TTCAAGGGGA GAGGAGGATG AGGAAGAGGA GGACGATGGG
 1501 ATGGACACTG CCGAGAGGA GATGGGCTCT GTGTGTGAA GAGGTTCCTG GGTGAGGAT
 1561 TGGACCACTC TCGGCTGGCA GACACAGCT GTGCCCATGT GCAGCGTGG GGTGAGGGG
 1621 AGCCTGCCCC CCCCCCTT TAACCTATGT GTGTGTGGAG TCTATTTAAT GTGTAATTAT
 1681 TCCGTGTGTG ATCTTGGGGT TTCCCCACAT CCCTCCCTTA TAAAGCTGTT ATCCGG

FIG. 12

SEQ. ID NO. 3

CHB9-protein

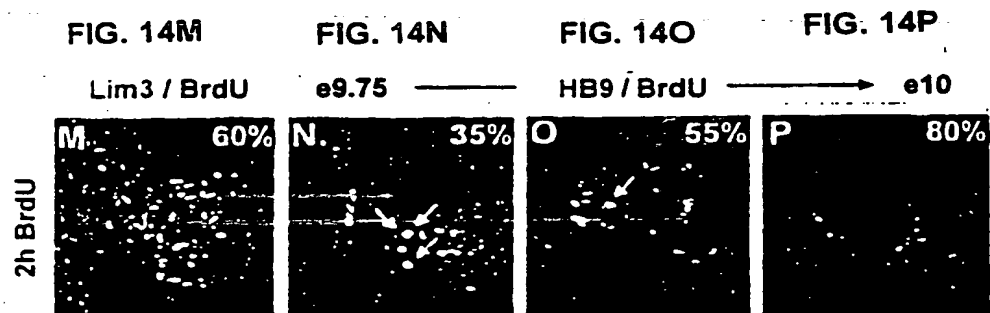
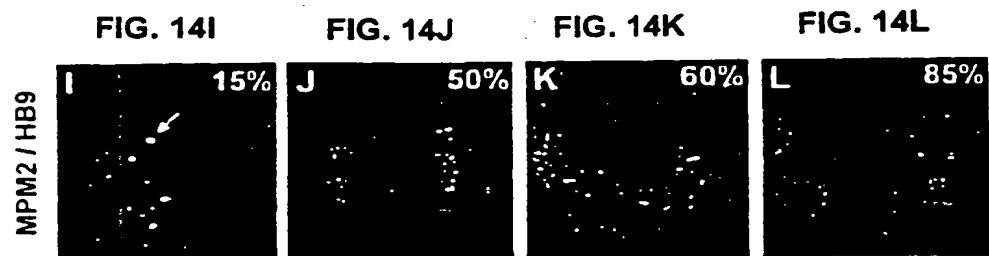
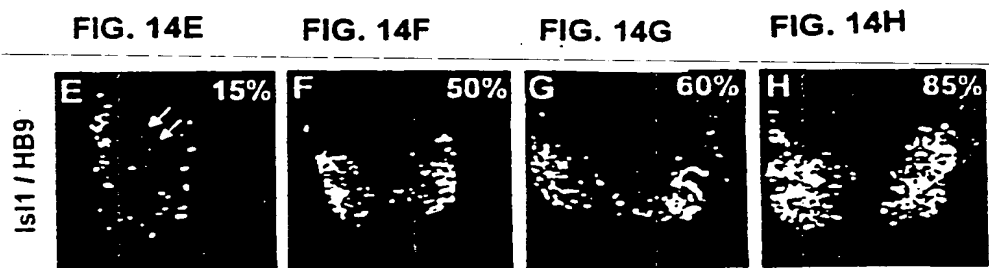
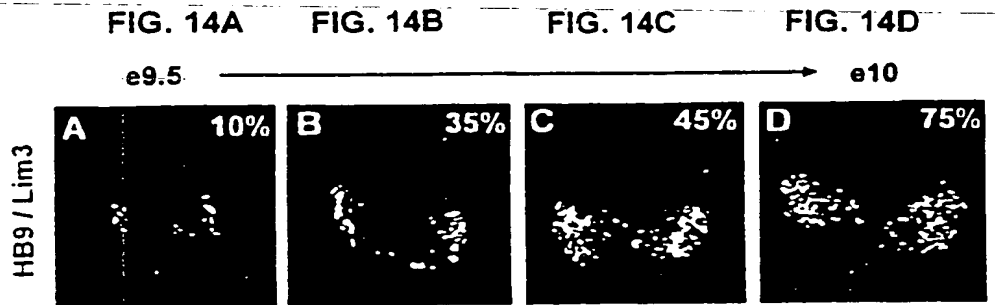
1	MEKSKNFRID	ALLAVDPPKA	AAQSAPLALV	TGGSGGGSPP	SSSSSSSSSS	SSSSSELPADC
61	PRTDSPSPPR	LLPAHICALLP	KAAFLGGGGP	GGHPQHIAL	GLHPAGPGGP	GLYGHVPVYG
121	PALGGQHIAL	SYSYSQVQGA	HPAHPSADPI	KLSAGTFQLD	QWLRASTAGM	ILPKMPDFGS
181	QAQSNLLGKC	RRPRTAFTSQ	QLLELEHQFK	LNKYLSPKR	FEVATSLMLT	ETQVKIWFQN
241	RRMKWKRQKK	AKEQAAQEAE	NEKGGGGGED	KSGPRELLLP	GPEKGGGRRL	RELPDSEPED
301	EEEEEEEEEE	AEAGRC'CPYH	SSDCSEADEE	DSQSGGRPGA	PPPPPAQPQ*	

FIG. 13

SEQ. ID NO. 4

cHB9 - DNA

1 CCGGGCTGGC CTCTCGCCGC CTCCGCCGCT CCCATGGAAA AAATCCAAAAA TTTCGCCATC
 61 GACGCGCTGC TGGCTGTGGA TCCCCCAAG GCGGGCGCG AGAGCGCTCC GCTGGCCCTG
 121 GTCACCGCG GCTCCGGGCG GGCAGCCCT CCGTCTCTGT CGTCTCTCTG GTCTCTCTCTG
 181 TCCCTCTCTT CTCTCGAGCT CCGCGCCGAC TGCCCCGGCA CCGACAGCCC CTCTCTCTCT
 241 CGCCTGCTGC CCGCGCACTG CGCGCTGCTG CCAAAAGCCG CCTTCTCTGG CGGGGGGGA
 301 CCGGGGGCG GCCACCCGCA GCACCAGCC CTGGGGCTGC ACCCGCGGG GCCGGGCGG
 361 CCGGGCCCTCT ACGGGCACCC GGTGTACGG TACCCGGGT TGGCGGGCA GCACCCGGG
 421 CTCCTCTATT CCTATTTCGA AGTGCAGGA GCGCACCCCG CGCATCCCTC GCGCGACCC
 481 ATCAAGCTGA GCGCCGGCAC CTTTCAGCTG GACCAGTGGC TGGGGCGGAG CACGGCCGGC
 541 ATGATCTTGC CCAAAATGCG GACTTCGGC TCTCAGGGCG AGTCCAACTT GCTGGGGAAG
 601 TGCCGGGGCG CGCGCACCCG CTTCACCAGC CAGCAGCTGC TGGAGCTGGA GCACCACTT
 661 AAACCTCAACA AGTACCCTCT CCGGCCAAG CGCTTCGAG TGGCCACGTC GCTGATGCTC
 721 ACCGAGACGC AGGTGAAGAT TTGGTTCCAG AACCGCCGA TGAATGGAA GCGCCAGAAA
 781 AAGCGGAAG AGCAGGCGGC GCAGGAGGA GAGAACGAGA AAGGAGGAG AGGAGGAGAG
 841 GACAAAAGCG GCGCGAGGGA ACTGCTGCTG CCGGCCCCG AGAAAGCGG CGGGAGGCGG
 901 CTGAGGGAGC TGCCCGACAG CGAGCCCGAG GACGAGGAG GAGAAAGA GAGGAAGAAG
 961 GAGGCCGAGG CCGGGCGGTG CTGCCCTAC CACTCTCCG ACTGCTCCGA GCGGAGCGAG
 1021 GAGGACTCGC AGTCCGGAAG ACGGCCCGA GCCCCCCG CACCCCCCG ACAGTCGAG
 1081 TGAGCCACG GCGGCCCGT CCGGGCCGCC CCGGCAACG GAGCTCTCTG GCCCGCTCT
 1141 CCAATCCGCT CTCCCATCC TCCCTGCTCG GAGGGGAGC CGAAAGGA TCTCCCGTCT
 1201 GCCGAGCGG AGGAGGATTT CACACAGTGT TATTAATTGAC TGAGAAAGCG CCACGACTTG
 1261 AGCCCCCTC CCGCCCCCG CCTATCGGA CCGTTTCTCT CTTACCATAT ATCGGGAAGA
 1321 GTGTTTATGT CATGAACGTT AAACTGCTG CAGATCTCAA TACTGTCTTT ATTTTGTATA
 1381 TCCATTATT AAAAAGCA AANTGAATC CTCCTACTAT GCATGCTAAA TTATTTACCA
 1441 GCCCCTTCG CCTGAGGTGG GGGGAGGAA TATAAATAA GAGCGTTTGT TACTGTGAAA
 1501 AAAAAAAAA AAAA



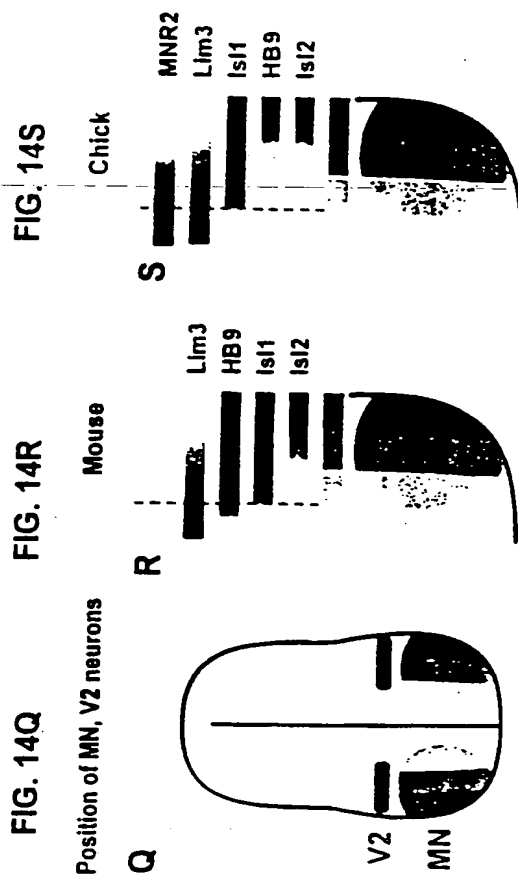


FIG. 15B.

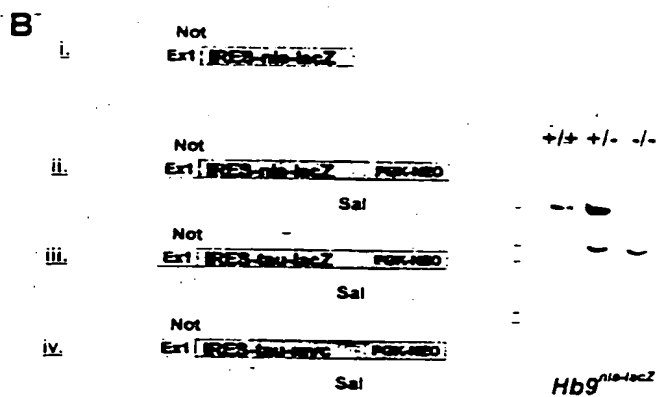
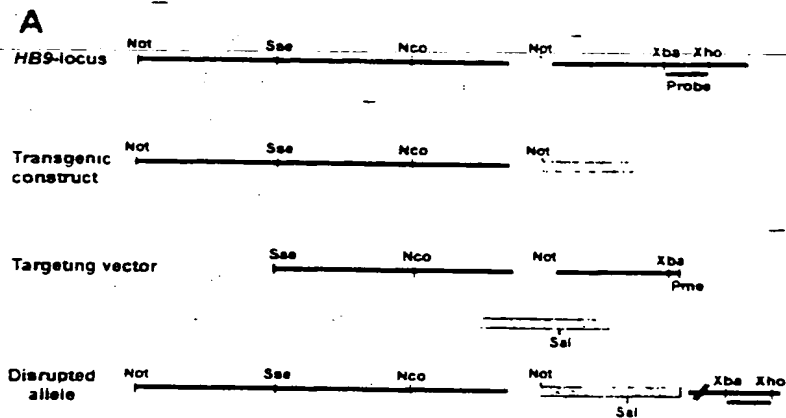


FIG. 15C FIG. 15D FIG. 15E FIG. 15F:

TgN (Hb9) SAX16 *Hb9^{tg10-lacZ/+}* *Hb9^{tgulacZ/+}* *Hb9^{tgulacZ/taumyc}*

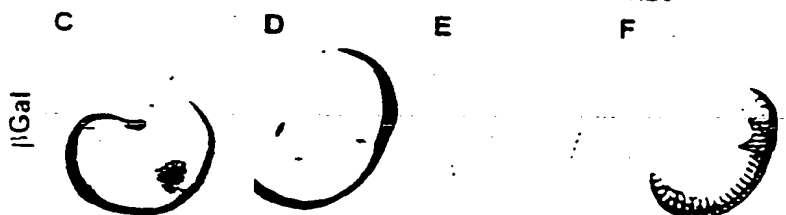


FIG. 15G

FIG. 15H

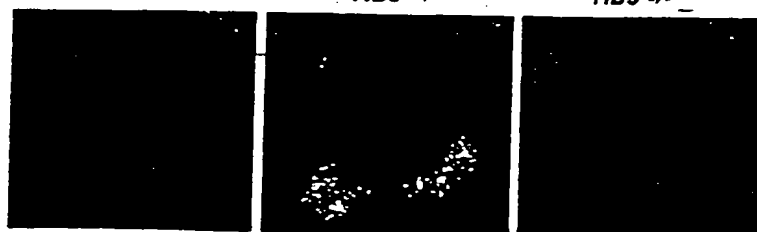
FIG. 15I

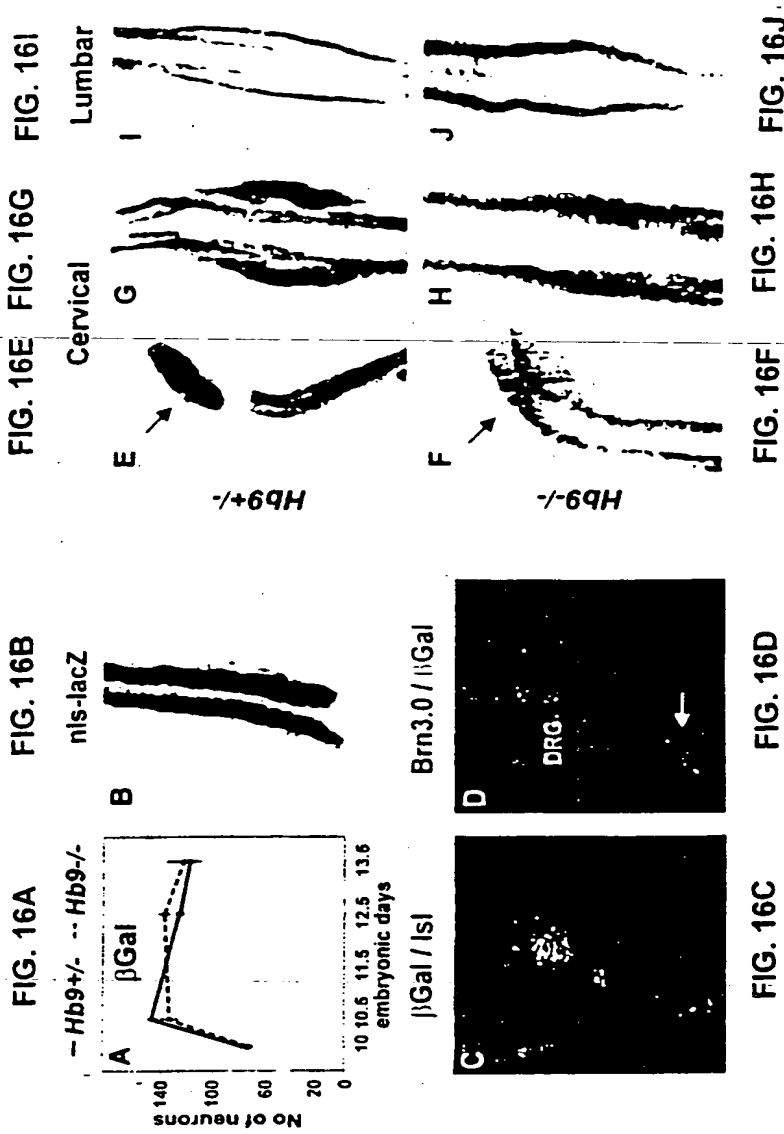
Gal / HB9

Hb9 +/+

Hb9 +/-

K59 -/-







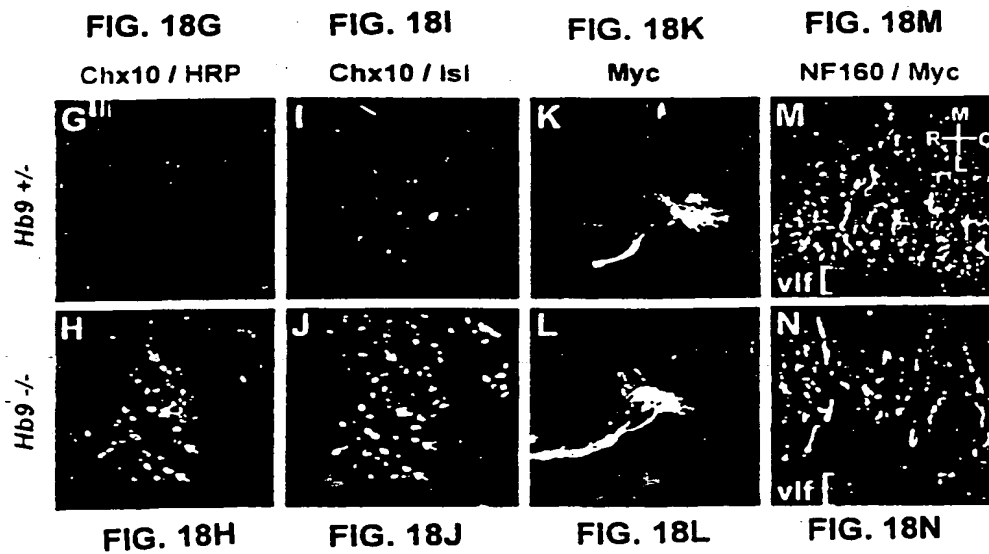
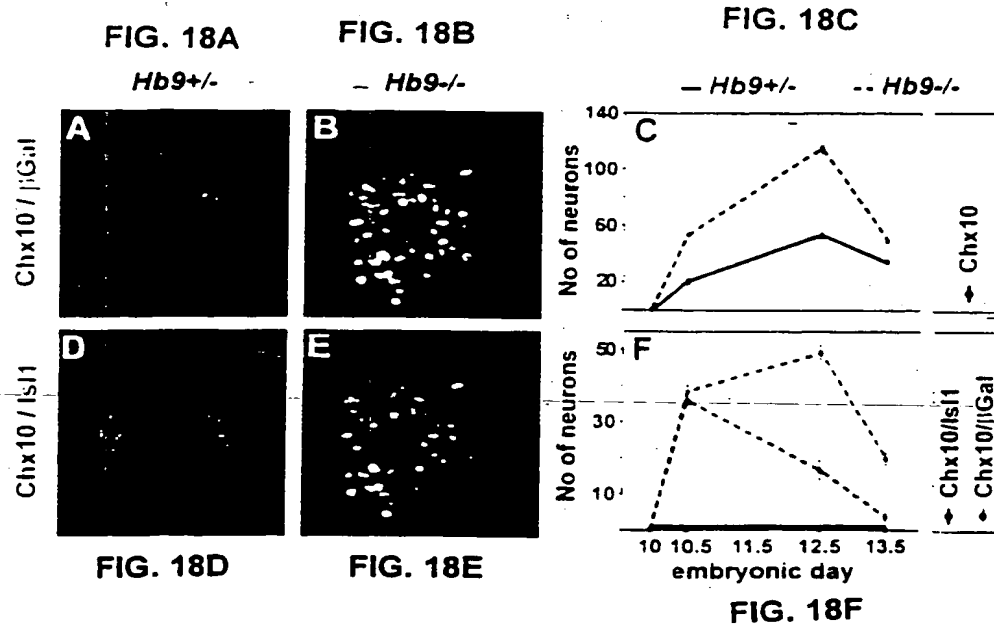


FIG. 19A

A Progressive MN Specification

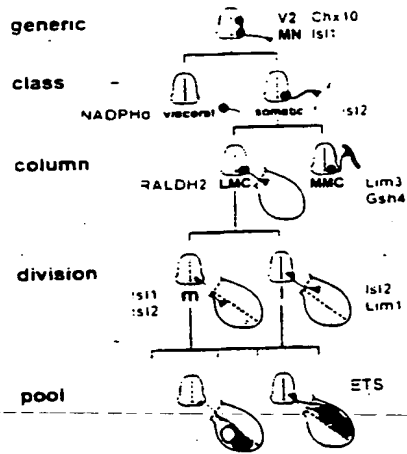


FIG. 19B

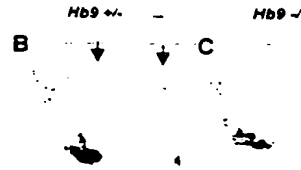


FIG. 19C

FIG. 19D

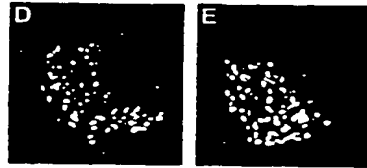


FIG. 19E

FIG. 19F



FIG. 19G

FIG. 19H



FIG. 19I



FIG. 19J



FIG. 19K



FIG. 19L

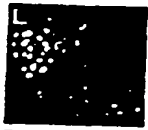


FIG. 19M



FIG. 19N



FIG. 19O

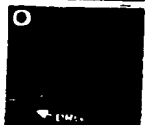


FIG. 20A

FIG. 20B

FIG. 20C

FIG. 20D

Hb9^{taulec2/+}*Hb9*^{taulec2/taulec2}

A

B

C

D

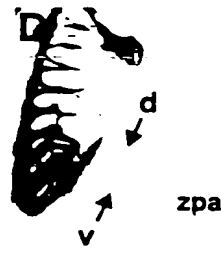
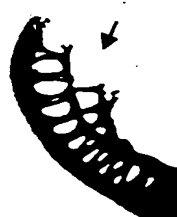


FIG. 20E

FIG. 20F

FIG. 20G

FIG. 20H

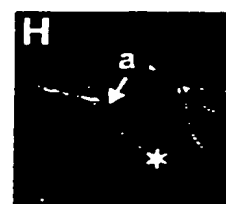
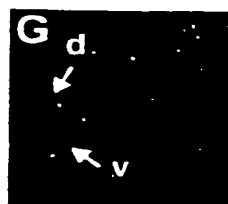
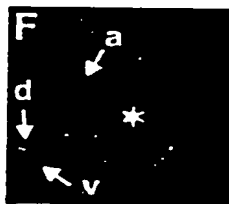
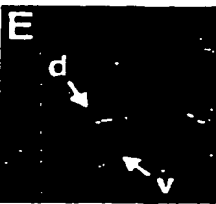
Hb9^{taumyc/+}*Hb9*^{taumyc/taumyc}myc / α -act

FIG. 20I

FIG. 20J

FIG. 20K

FIG. 20L

Hb9^{ntslac2/+}*Hb9*^{ntslac2/ntslac2}*Hb9*^{ntslac2/+}*Hb9*^{ntslac2/ntslac2} α BTXGAP43 / α BTX

FIG. 21

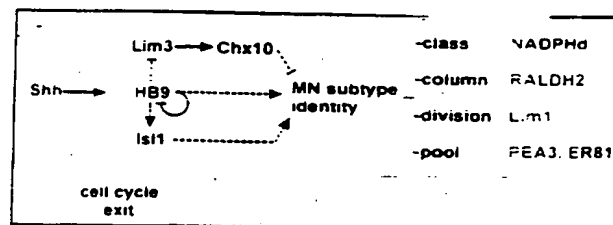


FIG. 22A

E8

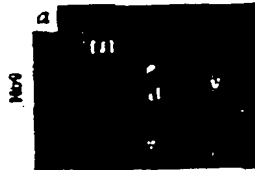


FIG. 22C

E8.5



FIG. 22E

E10.4



FIG. 22B

b

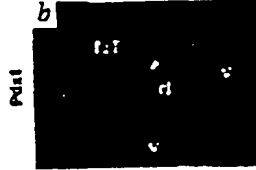


FIG. 22D

d



FIG. 22F

f



FIG. 22G

H2b/17.5

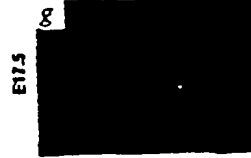


FIG. 22H

H2b/20.5



FIG. 22I

H2b/20.5

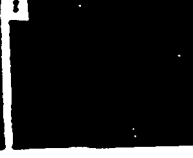
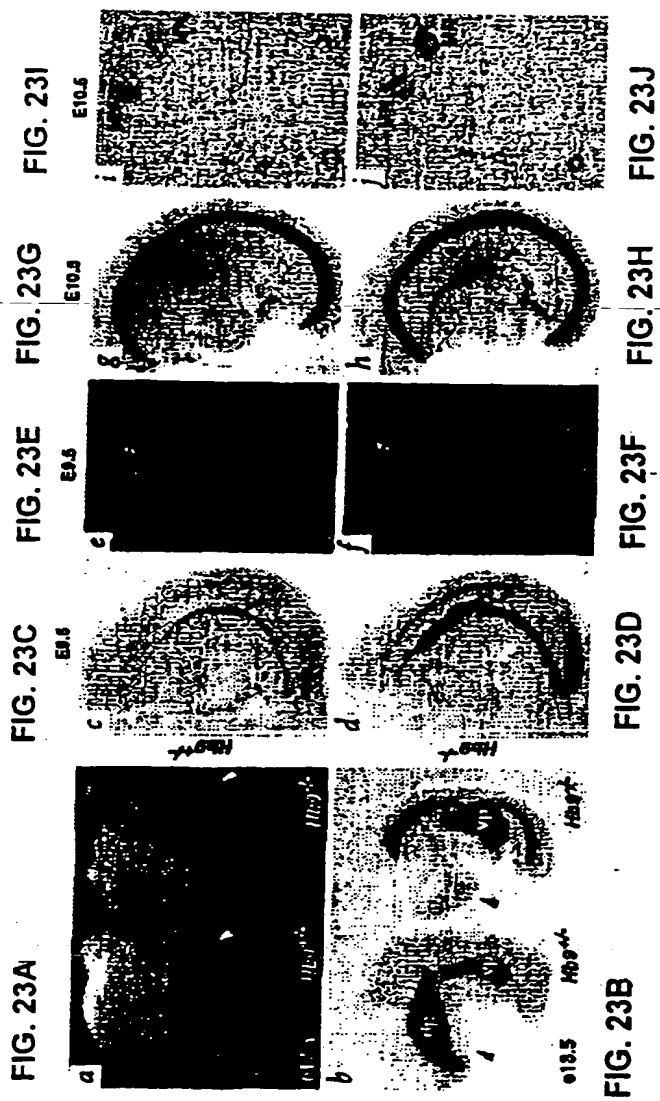


FIG. 22A



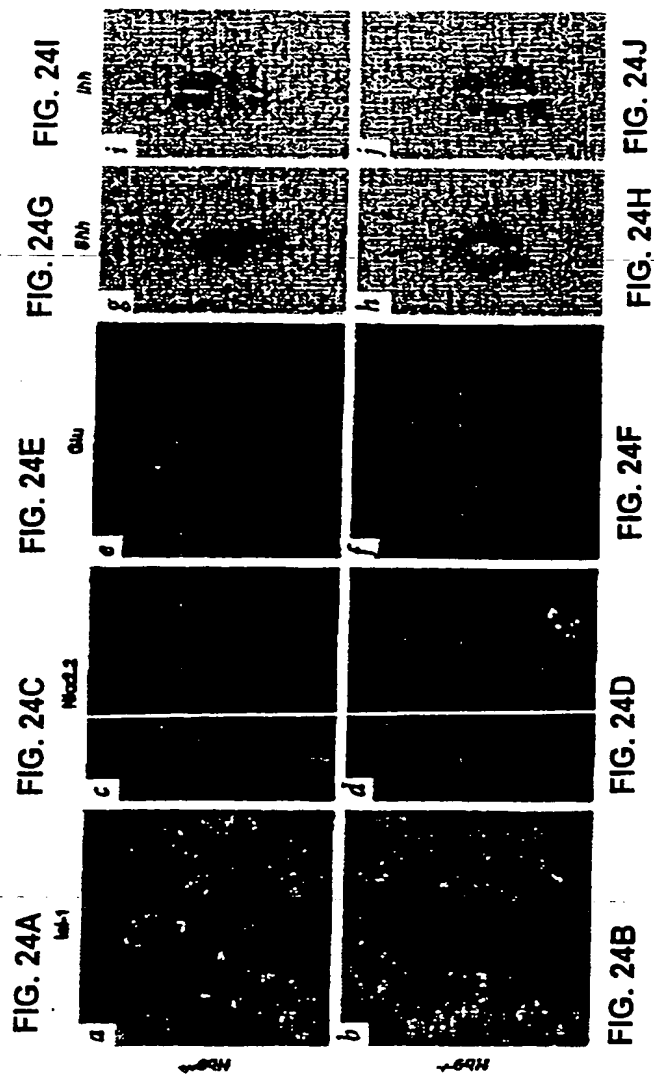

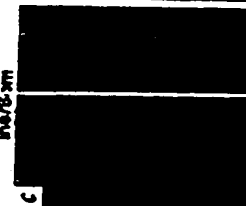


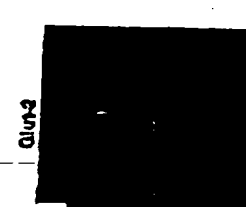
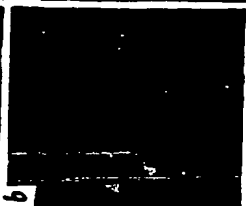
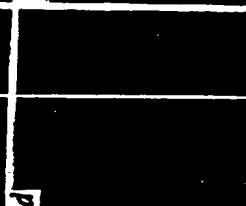

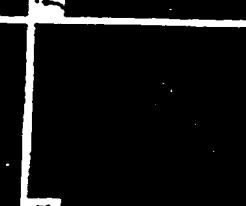
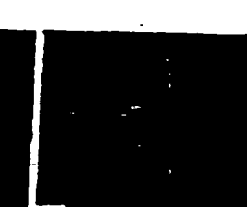
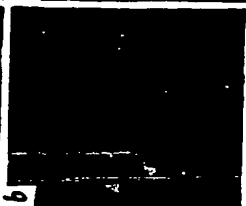
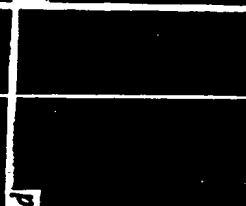

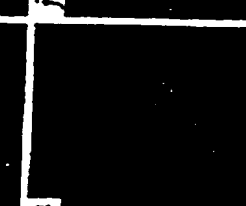
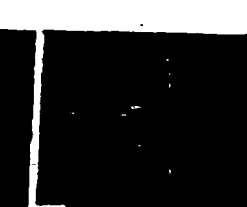


TABLE 20-00000000

FIG. 25A	FIG. 25C	FIG. 25E	FIG. 25G	FIG. 25I
 Ina/Dlu	 Ina/B-xm	 Amy	 Ina/PDX1	 Oln2
 Ina/Dlu	 Ina/B-xm	 Amy	 Ina/PDX1	 Oln2
FIG. 25B	FIG. 25D	FIG. 25F	FIG. 25H	FIG. 25J
 Ina/Dlu	 Ina/B-xm	 Amy	 Ina/PDX1	 Oln2